MILK RIVER WATERSHED NEWS

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INSIDE

Milk River Workshop: A Roaring Success

by Rich Moy

Over 200 people attended the educational workshop entitled "Milk River: International Life Line of the Hi-Line" held January 30,1999 at MSU Northern in Havre. "What I heard participants say today is that collaboration and coordination is the key for improving water management in the basin," noted Mary Ellen Wolfe, as she summarized the conference findings at the end of the day. The beautiful weather and dry roads made it easy for people from throughout the basin to attend the workshop. More than 30 Canadians were among those listening to and participating in the workshop.

The highlight of the conference was the premiere of a 30-minute video of the basin entitled "Milk River: International Lifeline of the Hi-Line." The video provided an overview of the Milk watershed, the diversity of users who rely on it, and current management responsibilities. The video and a user's guide may be ordered for $10.00 each from the Montana Water-course. (Phone 406-994-6671 or e-mail mwolfe@montana.edu.) Many participants remarked about the professionalism and high quality of the video as well as its enormous educational value. A follow-up video is planned that will address issues and concerns in the basin.

Over 20 beautifully done displays surrounded the conference room. Sask Water had four displays describing Parks Canada and the Cyprus Hills Provincial Park, the eastern tributaries in Saskatchewan and Saskatchewan environment and resource management. Other displays included Project WET Montana, salinity control, Walleyes Unlimited, Pheasants Forever, Agri-Met, watershed management, tribal water management, new water quality laws dealing with point and non-point source pollution, GIS maps of irrigation in the basin, and the Bureau of Reclamation Milk River irrigation project. Please refer to the article on the insert for further description of the workshop.

Snow Pack Looks Good

by Mike Dailey

The water supply forecast for the Milk River Basin is looking good this year. As of March 1, 1999, the Bureau of Reclamation shows total precipitation 123% of average and snow-water equivalent exceeding 130% of average in both the Milk and St. Mary River basins. The average snow-water equivalent generally peaks in early April and both basins have already surpassed these peak averages. As of March 1, total storage volumes for the Milk River Reservoirs are:

Sherburne Reservoir: 17,383 acre-feet; 70% of normal

Fresno Reservoir: 44,575 acre-feet; 105% of normal

Nelson Reservoir: 35,749 acre-feet; 100% of normal

Sherburne Reservoir was drawn down last October, to inspect the dam and outlet works, which accounts for the below normal reservoir level. With above average snow pack of 126% at Many Glacier, it should not be difficult to fill Sherburne Reservoir this spring.

"If you would like to contribute an article or editorial to this newsletter, have ideas or suggestions for improvements, or wish more information about these articles, please contact any member of the planning committee listed on the back page."

Facts about the Paradise Valley Irrigation District

by John Overcast

Editor's note: We plan to ask each division or district to provide the following information in upcoming newsletters. We appreciate the efforts of John Overcast in putting this information together for us.

GENERAL INFORMATION

Total Acres:	8,315 acres
Number of Farms:	63 farms
Water Price(s):	$12.75 per acre charged annually
Diversion:	Paradise Valley Irrigation District Concrete Dam. The dam has a 100 foot spillway with steel stands and boards that are removed in the off-season, a large gate is opened to lower the river during winter.
Miles of canals and laterals:	35 miles of canal and 70 miles of drainage ditches.
Board Members:	John G. Overcast, **President** Ernest Johnson, **Vice President** Bim Strausser, **Member**
Number of employees:	Full Time 0 Part Time: 1 secretary (monthly fee) and 1 ditch rider (six months)

QUESTIONS AND ANSWERS ON THE OPERATION OF THE PARADISE VALLEY IRRIGATION DISTRICT

Question: How does Paradise Valley Irrigation District charge water users?

Answer: The District charges one annual fee per acre of land irrigated.

Question: How are district taxes collected?

Answer: The District sends an assessment list to the county treasurer which lists the annual charge per acre of land irrigated for each account (General, Dam, St. Mary, O&M etc.). The Treasurer collects property taxes and deposits the District assessments into an interest bearing account until used.

Question: What types of crops are grown within the district and approximate percentages for each crop?

Answer: 70% alfalfa; 25% small grains; 3% alfalfa seed, peas, potatoes; and 2% miscellaneous.

Question: How does the district ensure a fair distribution of water?

Answer: The ditch rider records the time when each pump or turnout goes on and off. Flows can be checked with an electronic flow meter. Weirs will soon be installed on all laterals.

Question: What is the district's policy when a user is observed wasting water, and how is the policy enforced?

Answer: The ditch rider or a board member will talk with the water user. No fines are given at this time.

Question: What recent improvements (if any) have been made to the district's system?

Answer: Improvements included: lining of 3,500 feet of canal; replacing some laterals with PVC pipes; replacing field ditches with approximately 30 miles of PVC pipe; cleaning many of the drainage ditches; installing a hydromet station; installing new slide gates in the larger checks structures; and installing new walkways and rails for safety on a number of checks.

Question: What are the future plans, and long term and short-term goals for the district?

Answer: We plan to install and use more PVC pipe, line more of the canal to reduce seepage, and improve water measurement.

Question: In a sentence, what changes would you like to see take place in the Milk River Basin in the next 10 years?

Answer: We would like to see a Board of Control established to manage the operation and maintenance of the Milk River Project.

Workshop Identifies "Cooperation" as key to Improve Water Management

by Rich Moy
Photos by Mary Ellen Wolfe & Paul Azevedo

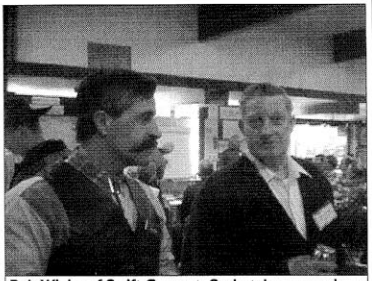
Highlights of the Milk River Workshop held at MSU Havre on January 30 are summarized below.

Woody Ekegren of MSU Extension Service and Kate Miller of MT Bureau of Mines and Geology began the conference by describing the physical aspects of the basin's hydrology. Ekegren emphasized that there are no average years in the Milk River. He noted that "we do not know from one month to the next whether it will be a good or bad year for moisture and irrigation water. It seems that the Milk River is either flooding or in drought." Randy Perez of the Fort Belknap reservations talked about the role the tribes on the Blackfeet, Rocky Boy and Fort Belknap reservations played in the history of the basin. Mary Ellen Wolfe ended the morning session by covering the history of activities in the basin and showing the video, "Milk River: International Life Line of the Hi-line."

The afternoon session began with a panel discussion by water users on current issues confronting residents in the basin. Max Maddox, a local irrigator, noted that living in the Milk River basin is a "hard life", and that almost everyone has an association with irrigated farming. He also pointed out that the Milk River water is used and re-used a number of times as it flows from the eastern crossing to the confluence with the Missouri River.

Over 200 people attended the workshop at MSU Northern.

Anne Boothe, representing tourism and recreation, felt these two industries have had a positive impact in the Milk River Basin, but until the mosquito problem is solved, tourism may not increase much further.



Rob Wiebe of Swift Current, Saskatchewan and Wally Elliott of Chinook share thoughts on the Milk River Basin during a break in the workshop.

Rob Wiebe of Sask Water felt the real issue that needs to be addressed is more storage reservoirs. He noted that Saskatchewan loses a significant amount of water to Montana based on the international apportionment of flows between Montana and Saskatchewan. He further emphasized that "we [Montana and Saskatchewan] must work within the existing framework [of the apportionment and lack of storage] to more efficiently manage our shared water resources." Ian Franks, Alberta Environment talked about the water needs of Alberta.

Lynn Cornwell, representing the ranching industry stated, "We must support Governor Racicot's Vision 2005 that calls for 500,000 acres of new irrigation. We need to try to figure out how to enhance irrigation in the Milk River. We have talked about this for years, now we need to take action."

Pancho Bigby, of the Fort Belknap tribes, started by saying, "I must throw cold water on the enthusiasm toward more water development by this group. The Fort Belknap reservation is like a third world country. We have over 13,000 potential irrigable acres, but only about 500 acres in irrigation. We have the same dreams, but we do not have the same opportunity like our neighbors outside the reservation to participate in federal [water development] programs. We would also like to participate in the governor's Visions 2005 dream."

Other panel participants included, Kristi Kline, from Havre Water Treatment facility, who talked about municipal water use issues and Kent Gilge who described the fish and wildlife resources of the basin.

Based on these presentations, the Dilemma Derby began. Participants broke into ten groups and each group addressed and identified solutions to one of the following five dilemmas:

1) Saskatchewan is facing drought conditions in the Frenchman Basin and there is not enough water to satisfy the basic provincial water needs and still meet the international apportionment for delivering water to Montana. What can be done to resolve this dilemma?

2) Water for upstream junior water users in the Milk River basin will be less after the native American senior water rights are quantified and perfected. What can be done to maintain a reliable water supply?

3) The Milk River basin already experiences water shortages in four out of ten years and you just heard that Alberta plans on building a storage project to utilize its allocated share that Montana has enjoyed for all these years. What options are available to resolve this dilemma?

4) Water quality in the lower Milk River basin has deteriorated from discharges or runoff from sewage treatment plants, fertilized agricultural fields, and animal feed lots throughout the basin. Federal and state law requires that you cleanup this poor water

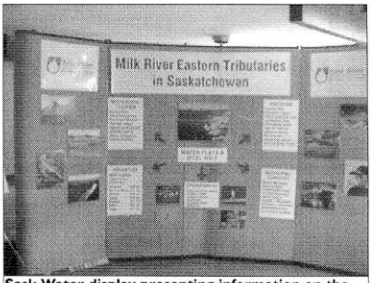
quality. How would you solve this dilemma?

5) Deteriorating infrastructure, endangered species, and native American water rights impact the ability of irrigators to receive a reliable water supply. What options are available to the Irrigation Districts to solve this dilemma?

Bob Larson of Havre is facilitating the group discussion on one of the five Milk River Dilemmas.

Each group presented its findings. They talked about the need for better water management, and the importance of cooperation for addressing poor water quality issues, water shortages, inefficiencies in water use, and aging and deteriorating infrastructure such as Dodson and Vandalia diversion structures. They felt it is important to work with the Reserved Water Rights Compact Commission in resolving reserved water rights of native Americans. A number of the groups thought additional storage is needed. It was brought up a number of times that better international cooperation is critical for managing shared waters between Alberta, Saskatchewan and Montana.

In the final panel discussion, the participants heard about potential solutions to the dilemmas. Carol Mackin, water quality coordinator for Department of Environmental Quality described the new watershed approach for resolving water quality problems called TMDLs or Total Maximum Daily Loads. Barb Cosens, representing the Montana Reserved Water Rights Compact Commission, laid-out the major issues and components of a proposed compact with the Fort Belknap tribes that is being negotiated. She indicated that the tribe has a right for most of the natural flows of the Milk River during the irrigation season, and that the Commission is hoping to subordinate the tribal reserved water rights to water rights on the Milk River tributaries. She noted that the delivery of water from Fresno reservoir will need better coordination and enforcement. She stated " the cost of importing water into the Milk River basin is too high and it will not happen unless you are willing to pay for it." Rob Wiebe, of Sask Water re-emphasized the need for better cooperation and the importance of additional storage on the northern tributaries to resolve water shortages.



Sask Water display presenting information on the management of the eastern tributaries of the Milk River in Saskatchewan.

Norm Midtlyng and Bob Davis of the U.S. Geological Survey, and Russell Boals of Environment Canada described the Boundary Waters Treaty of 1909 and how the flows of the Milk River tributaries and the mainstem are apportioned. Mr. Davis mentioned that the International Joint Commission is encouraging the formation of international watershed groups to manage share waters.

Brent Esplin and Scott Guenthner of the U.S. Bureau of Reclamation concluded the panel by discussing the aging infrastructure in the Milk River basin, and the potential for augmenting water supplies into the basin. They emphasized the importance of sharing shortages and becoming more efficient in water use. Scott illustrated the importance of the St Marys diversion and stored water behind Fresno Reservoir. He stated that in normal years, the St Mary provides about 70 percent of the flows and about 90 percent in dry years. Most of the July through September irrigation season water in the Milk River is from water diverted from the Saint Mary River and Sherburne reservoir, and stored in Fresno.

Manson Bailey of Glasgow, and others are crafting potential solutions to their Milk River dilemma.

Kristi Kline of Havre is presenting the results from her "Dilemma Derby" workgroup to conference participants.

After this panel discussion, there was a general discussion on the issues identified in the Dilemma Derby and potential options to resolve these issues. Mary Ellen Wolfe wrapped up the conference by noting that education, citizen involvement, and cooperation are the key ingredients for better water management. ■

History of Irrigation Development in the Milk River

PART 3

By Manson Bailey Jr.

IN PART 1 AND 2, I DESCRIBED THE RELATIONSHIP BETWEEN TEDDY ROOSEVELT AND BIG JOHN WILLIS AND THE ROLE WILLIS PLAYED IN THE AUTHORIZATION OF THE MILK RIVER IRRIGATION PROJECT. IN THIS INSTALLMENT, I WILL DISCUSS THE SIGNIFICANCE OF THAT RELATIONSHIP IN THE DEVELOPMENT OF THE MILK RIVER IRRIGATION PROJECT AS WELL AS SOME OTHER WATER PROJECTS WHICH PRECEEDED IT.

As stated in Part 2, the Reclamation Service (now the Bureau of Reclamation) was established by Congress in June 1902 under the Roosevelt Administration. Prior to creating the Bureau of Reclamation, a federal investigation was launched in 1891 to find ways to supplement low summer flows in the Milk River.

T.B. Burns brought his family north to Chinook from the Yellowstone in 1889. He irrigated at his former home, and after acquiring eighteen hundred acres in the Milk River Valley under the old Desert Land Act (which required the settler to irrigate) he dug canals from the river to his fields. The Great Northern Railroad Company, whose line reached Havre in 1887, was completed to the coast six years later. The railroad promptly obtained an injunction to prevent Burn's use of the water alleging that it owned rights on the entire Milk River which runs along side the railroad right-of-way for about one hundred and seventy-five miles. The company argued that it had rights to the water for its locomotive boilers. Litigation dragged on for several years, but finally Burns won. Thus, he filed the first water right on the Milk River. Burns, with his neighbors, constructed a community dam near the present site of Fort Belknap diversion dam.

The first large irrigation enterprise in the basin was the Rock Creek Canal Company North of the Milk River and east of Hinsdale. H.H. Nelson, a large sheep rancher from Cascade, had accumulated three years of wool clippings with the hope of higher wool prices, but prices continued to drop. Much to the advantage of our valley and Vandalia, Nelson had to move after his sheep operation in Cascade was shut down by financiers. On August 14, 1901, promoters W.W Woolridge and H.H. Nelson posted a notice claiming 250 cfs from Rock Creek to irrigate some 8,000 acres. The construction work was completed and on November 18, 1902 the Rock Creek Canal Company was incorporated under the laws of Montana. The original project contained 58 shares with a quarter section of land equal to one share, of which H.H. Nelson owned seventeen. Nelson, also being an earth-moving contractor, brought in horse teams, slips, freznos, and an elevating grader with bottom-dump wagons. Nelson's elevating grader used sixteen horses in front pulling and eight behind as "pushers" for a total of a "24-horse rig."

As noted in Part 2, the Milk River Project was approved on March 4, 1903, and in the spring of 1904, Reclamation Service engineers arrived to begin work on Dodson Dam. Nelson held the construction contract for the project. My uncle, Ralph Fifield, came from Maine to work as an engineer on the project. When finished, Dodson Dam would provide irrigation water for eastern Phillips County and western Valley County.

Also, there was a great effort to seek congressional approval to irrigate 18,000 acres between Vandalia and Nashua south of the Milk River. On March 21, 1905, the local irrigators elected John and Mrs. Willis as their official delegates to Washington D.C. They were requested to call upon President Roosevelt and Reclamation officials and to urge them to initiate immediate action on the part of the government in carrying out irrigation works between Vandalia and Nashua. Roosevelt invited them to stay at the White House, but John did not feel that it would be proper. They did receive the following invitation to have lunch with the President at the White House:

White House,

Washington

March 30th, 1905

My dear Mr. Willis:

The President requests me to say that he would be glad to have you and Mrs. Willis take lunch at the White House tomorrow (Friday) at 1:30 o'clock. Please advise if you accept.

Very truly yours,
(W.M. LOEB JR.)
Sec'y to the
President

Mr. John Willis

Metropolitan Hotel,

Washington, D.C.

Web Sites to Bookmark

The Internet is a huge information bank and finding what you are looking for can be time consuming and frustrating. Provided below is a list of web sites that relate to the Milk River Basin and Montana.

United States Bureau of Reclamation Great Plains Region
www.gp.usbr.gov
This site contains information regarding USBR activities. Click on Water Supply Management to access Agri-met and Hydromet data.

Natural Resource Information System
http://nris.mt.gov
This site contains hundreds of GIS maps that can be downloaded for free. This site also contains information on groundwater programs, the volunteer water monitoring program, and many additional links. More information is available per request, although there may be a fee associated with it.

United States Geological Survey
http://montana.usgs.gov
This site contains current stream conditions, various water use information and water reports.

Montana Online
www.mt.gov
Provides access to information regarding State government, education, employment opportunities, education, and announcements.

Montana Department of Natural Resources and Conservation Home Page
www.dnrc.state.mt.us
Privides Access to various DNRC activities and information including grants and loans, water rights, news and events, and water resource information. The DNRC Water Resource Regional Offices have online computers available for public use.

The Weather Channel Homepage
www.weather.com
Provides the latest weather forecasts for any city including current weather maps.

Happy surfing!

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The next day after the lunch, Mr. Willis received the following letter from the President regarding this new irrigation project. As you can see from the letter, the long-term friendship between Willis and the President opened the doors with the Reclamation Service.

White House,

Washington

April 1st, 1905

My dear Mr. Willis:

I have asked the Reclamation Bureau to take immediate action in the whole Milk River matter, and have authorized them to do what I have done in no other case-that is, to go ahead with the scheme now before them, even though this scheme will probably entail a greater expenditure of money than I have felt warranted in having the service incur elsewhere.

I am, of course, not competent to speak as between two given propositions, especially if the engineers differ among themselves. I have called for an immediate report upon the specific matters you bring up.

Sincerely yours,

(signed) THEODORE ROOSEVELT.

Mr. John Willis,

Metropolitan Hotel

Washington, D.C.

When Reclamation engineers again reviewed the Vandalia diversion proposal, they said it would not be possible to dam the river at that point and divert enough water to irrigate 18,000 acres. They believed additional storage was needed. That is when H.H. Nelson searched for and found a new dam site now known as Nelson Reservoir. This storage site satisfied Reclamation and plans proceeded. Other irrigation projects followed later.

Now, if Teddy Roosevelt had not seen that goat in the window, I might not be bringing this history to you as my dad came from Maine in 1912 as an engineer on the Vandalia Dam Project. He knew about the project from his brother-in-law, Ralph Fifield of the Dodson Project, who later held the position of project manager for the Montana Water Conservation Board.

The federal investigation that started in 1891 determined that the most feasible plan for securing a viable water supply in the Milk River was to transfer St. Mary River water from Glacier National Park into the headwaters (North Fork) of the Milk River. Both of these rivers are shared with Canada. Because of this proposed interbasin water transfer project, the Boundary Waters Treaty was entered into between Great Britain (Dominion of Canada) and the United States on Jan. 11, 1909. It provided for the division of St. Mary and Milk River flows between the United States and Canada. The St. Mary's Storage Unit in Glacier Park was authorized by the Secretary of the Interior on March 25, 1905 and the Sherburne Lake Project was completed in 1915.

Note: Some historic references: From the Irrigation Section of "Valley County History" published in Glasgow1925; "True West Magazine" September-October 1970, titled "Making a Man of Roosevelt"; The book, "On the Heels of the Buffalo, by Elizabeth Greefield (H.H. Nelson's daughter); Some excerpts from my previous writings in the irrigation section of volume 3 "Footprints in the Valley, published 1991 (a history of Valley County). Montana Resource Board, March 25, 1968

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